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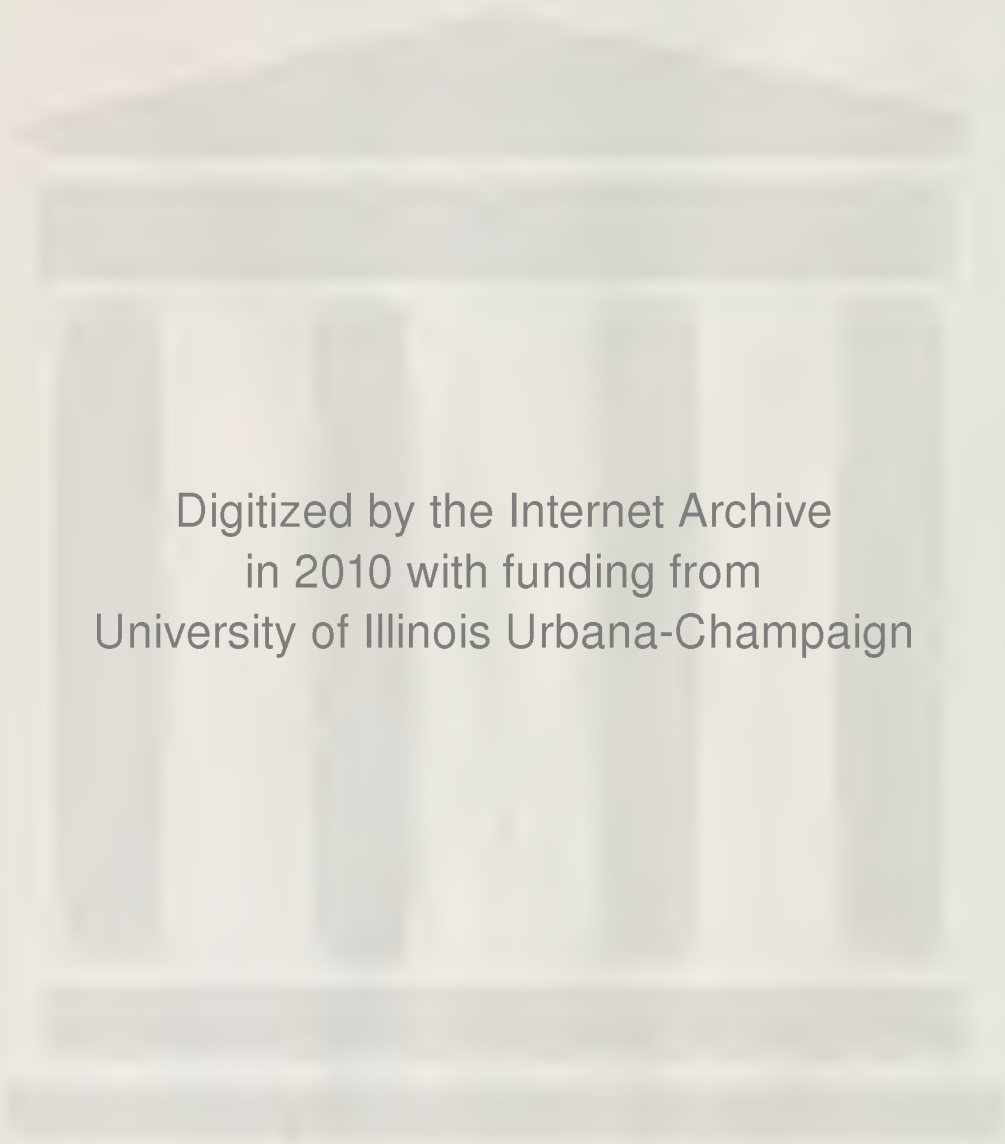

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URBAN TRANSPORTATION: THE SOCIAL DIMENSION.
An Annotated Bibliography

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URBAN TRANSPORTATION: THE SOCIAL DIMENSION

An Annotated Bibliography

by

James Cornehls and Delbert Taebel
Institute of Urban Studies
University of Texas at Arlington

This bibliography was developed in the process of teaching a joint seminar on the economic and political dimensions of urban transportation. As a result, it is more than just a survey of the literature and a sampling of what is available on the subject. It has a theme and it grew out of a deliberate effort to organize and teach an interdisciplinary seminar dealing with a significant urban policy issue from a specific perspective. That perspective sought to examine urban transportation first as a function of systemic variables which influence and govern transportation decision making and second as a major variable itself, with important impacts on a large number of other urban problems. It is decidedly pro the creation of a transportation system which gives great weight to factors other than technological efficiency and the economist's "measured costs."

Urban transportation systems have had an enormously powerful impact on the development of cities in the United States. These impacts range all the way from the splitting of neighborhoods and the dislocation of entire social units

by super freeways to the nature of land use developments and the ability of people to find employment. Yet, the control of urban transportation alternatives is virtually out of the hands of any of the groups so affected by its development. The impersonal "system" controls these developments, which are alleged to reflect people's "values."

We found that most of the literature on urban transportation was not very useful for the approach we wanted to take. We also found that surprisingly little scholarly attention has been given to some very significant transportation issues. These include such questions as the economic and political influence of transportation interest groups, the impact of transportation decisions on various socio-economic groups and the role of transportation in urban design. We were frankly appalled at the seeming lack of interest in such glaringly apparent contradictions as that between the existing urban transportation systems and the quality of urban living and the astounding need for more monies for mass transit vis a vis the ability of highway interest groups to block their appropriation. We are making an effort to fill some of this need in a study of our own. But we lay the blame for the improverished state of the present bibliography squarely at the feet of the thousands of scholarly works on urban transportation which attain a pseudo-scientific objectivity

at the cost of banality. The problems of urban transportation are normative issues, so firmly entrenched in the existing policy biases that most of the other dimensions are virtually meaningless until urban transportation research successfully analyzes and understands these.

Altschuler, Allen. "Transit Subsidies: By Whom, For Whom?" AIP Journal, March, 1969, pp. 84-88.

Urban transit subsidies are needed to enhance the mobility of the poor and the physically handicapped whose relative mobility has been steadily decreasing. Analysis of the overall transit situation suggests that such subsidies should be specifically tailored to needy individuals rather than to transit companies. Transportation user charges, including highway user tax payments, offer one logical source for subsidies.

Barloon, Marvin J. "The Interrelationship of the Changing Structure of American Transportation and Changes in Industrial Location," Land Economics, Vol 41, May, 1965, pp. 169-79.

Examines the relationship between industrial location and transport systems, notes that U. S. industry is relatively footloose with respect to transportation, and that "changes in industrial output and in location appear to alter the structure of transportation, rather than the converse."

"Bart Rail Transit System Begins Operation," Civil Engineering. November, 1972.

Describes the opening of the BART system and the innovative features incorporated into its design.

Benede, Barry. "Pedestrian in the City," Traffic Quarterly, Vol. 19, January, 1965, pp. 28-42.

Traces the development and decline of consideration of pedestrians in urban transport networks and sets criteria for planning for pedestrian use of streets on various street networks.

Bishop, Bruce A. Socio-Economic and Community Factors in Planning Urban Freeways. Ann Arbor: University Microfilms, 1969.

Approaches planning of freeways in a more comprehensive, people oriented manner. Special emphasis is on quantitative and qualitative measures and on user and non-user effects of freeway location.

Branch, M. "Outdoor Noise, Transportation and City Planning," Traffic Quarterly, April, 1971.

The manor thrust of the article is that noise is registered by and affects the unconscious mind and central nervous system as an irritant. This is perhaps the reason why land adjacent to airports and freeways experiences blight and decay. Land use control, noise regulations and screening are the three suggested ways to control the effects of noise. Some of the legislative suggestions are: establish an office responsible for noise emission and control, set accoustical insulation standards for residences in noise designated areas, provide mandatory noise warnings to home buyers when their dwelling is in a noise pollution areas.

Bunge, William. "Toward a General Theory of Movement," Theoretical Geography, Lund, Sweden: C.W.K. Gleerup, 1962, pp. 108-129.

This chapter of Bunge's larger text includes a brief comment on general flow models, a review of spatial movement theories in their traditional categories based on subject matter, and a discussion of their abstract spatial properties, leading to a reclassification of the theories and a conclusion which comments on geographic unity. The author strives to unite two bodies of theory: central place theory and movement theory.

"Controversy over the Federal Methods of Financing Air to Urban Transit Systems," Congressional Digest, December, 1969, p. 289.

The Digest has devoted an entire issue to present both points of view in the debate over federal financing of mass transportation. The article is of value because it contains extended comments by prominent congressmen concerning such matters as funding operating costs and the sanetity of the Highway Trust Fund.

Creighton, Robert L., Irving Heck, Morton Schneider, and Joseph Hyman. "Transportation in Regional Development," High Speed Ground Transportation Journal, Vol. 2, January, 1968, p. 107.

To reverse the trend of unplanned urban growth, it is suggested that population should be concentrated along appropriate transport corridors in accordance with a regional development plan.

Dewees, Donald N., et al. Mass Transit and the Highway Trust Fund. Cambridge: Harvard University Press, January, 1970.

This study focuses upon the Highway Trust Fund and discusses the appropriateness of the Fund for mass transit expenditures. The material has been organized into (1) major characteristics of Highway Fund with a view to suggesting the kinds of judgements required to decide whether some proposed extensions of the highway fund are appropriate; (2) use of this analysis to examine various proposals to extend the Highway Fund to cover certain highway costs not presently financed in this way; (3) a look at the problems of mass transit and using the previous analysis considering three alternative proposals. First to fund mass transit capital expenditures out of a special mass transit trust fund; second to fund them out of the Highway Fund itself; and to establish a multi-modal transportation trust fund. Finally direction for public policy.

Donanski, Ryszard. "Remarks on Simulataneous and Anisotropic Models of the Transportation Network. Comments by A. J. Scott." Papers of the Regional Science Association, Vol. 19.

This paper considers the model of a transportation network as a system of edges and capacities as presented by Scott. Unlike Scott's research the author suggests that transportation networks and settlement patterns should be determined simultaneously, as well as the simultaneous determination of the spatial pattern of transportation network complexes consisting of different kinds of transport. Examples of both research approaches are provided.

Fisher, Ron. "Shirley Express Bus on Freeway Demonstration Project," Highway and Urban Mass Transportation, Washington, D. C., Fall, 1972.

This article evaluates the preliminary results of the demonstration project, which has been very successful in reducing peak-hour auto travel on the Shirley Highway in the Washington, D. C. area. The reasons people gave for switching to the bus are discussed in detail.

Fitch, Lyle C. Urban Transportation and Public Policy, San Francisco: Chandler Publishing Co., 1964.

Although this text is not a recent publication, it is an excellent source for the beginning of the Federal Role in urban transportation. It is of particular merit because it was written prior to the Urban Mass Transportation Act of 1964. It was therefore written when the federal role was mininal and it has a forward looking perspective. It is interesting to note that many of his suggestions in his chapter "Recommendations for the Future," have become a reality in recent years. Examples would be the formulation of an urban mass transit administration and the federal role in research and development.

This work is also important from an historical perspective in that it cites the three major works which gave impetus to the emerging federal involvement. These are the Delworth Committee Report of 1959, the Doyle Report of 1960, and the Report of the Secretary of Commerce and the Housing and Home Finance Administration of 1962. All of these recommended that federal capital be invested in urban transportation. Finally, a review of the Congressional political battles concerning urban transportation is of benefit.

Freeman, J. Leiper. The Political Process: Executive Bureau. Legislative Committee Relations, New York: Random House, 1965.

This text is a study of how federal policy is actually formulated. It does not deal with urban transportation policy but with policy-making in general. It describes the politics of policy-making in terms of a system and sub-systems. The System consists of the Parties, the Administration and Congress, the sub-systems consist of the Executive Bureaus, Congressional Committees and Interest groups.

The author discusses the relationship between the system and the sub-systems. He concludes that although the system does exert influence on the sub-systems, it is limited, and therefore allows for a great deal of sub-system autonomy. He also analyses the inter-relationships within the sub-system and he describes a number of political strategies and tactics which are utilized by each member of the sub-system. Applying Freeman's analysis to urban transportation policy clarified what appeared to be a totally ambiguous situation.

Ganz, Alexander. "Emerging Patterns of Urban Growth and Travel." Highway Research Record, No. 229, 1968, pp. 21-37.

The trend towards dispersal of travel away from the central city is discussed with reference to land use, travel patterns, and mode of travel.

Generette, Clarence. Solutions for the Seventies, New York: April, 1970, pp. 20-23.

This article elaborates on integrated urban mass transit and how it is essential to save our cities from further decay. It used Cleveland's new system as a base of reference.

Hay, George A., Edward K. Morlok, and Abraham Charnes. "Toward Optimal Planning of a Two-Mode Urban Transportation System: A Linear Programming Formulation," Highway Research Record, No. 148, 1966, pp. 20-48.

Linear Programming is used to establish optimum transportation service for automobile transport facilities and mass transit facilities in a radial downtown oriented corridor. The objective is to find what combination minimize capital and operating costs of transit and auto transport during the design year.

Heilbroner, Robert, et al. In the Name of Profit, Garden City: Doubleday and Company, 1972.

In the Name of Profit is a series of case studies which illustrate various instances of irresponsibility by business corporations. The major chapter of interest for the transportation system is Chapter 2, "Deciding to Cheapen the Product," which outlines certain actions by General Motors aimed at reducing the quality of their product to maintain profit percentages. Reviews the massive recalls of motor vehicles during 1966 and 1970 which amounted to approximately 13,000,000 vehicles. Automobile casualty figures are revealed, which were a staggering 56,000 deaths and 4,5000,000 injuries in 1970. One grotesque illustration of the corporate ethic is provided by a quote from James Roche, GM Board Chairman, in which he says "planned obsolescence in my opinion is another word for progress."

Higgins, John K. "Whose Free Ride? Transit Subsidies," New Republic, May 6, 1972, p. 13.

This article asks the question: If subsidies are instituted by the Federal Government, who will benefit--the consumer or the transit operator? He suggests controls on subsidies--the formulas for the controls would be tested through pilot programs.

"Highway Boys Win Another One." Wall Street Journal, October 10, 1972.

This article discusses the political studies which were utilized by the administration, congress and interest groups during the debate over the sanctity of the Highway Trust Fund. It is extremely critical of the tactics used by the highwaymen in defeating the Federal Aid to Highways Bill of 1972. The article clearly shows how one faction in the House of Representatives managed to kill a bill everyone seemed to want, including the administration and the Senate. It ends on an optimistic note, stating that chances of passage looks good in the next session because of the new makeup of the House.

Highway Research Board's Highway Research Record No. 97, Planned Communities, Washington, D. C.: 1965.

This report contains five papers on current activity in this country in the development of planned communities and on Europe's experiences with new towns.

Hilton, George W. "Rail Transit and the Pattern of Modern Cities: The California Case," Traffic Quarterly, Vol. 21, July, 1965, pp. 379-393.

A Study of the relation between the geographical pattern, the technology of urban transportation, and the other forces at work on the form of American cities, with emphasis on San Francisco and Los Angeles.

Hoover, Edgar M. Motor Metropolis: Some Observations on Motor Transportation in America. Center for Regional Economic Studies, 1965.

Refers initially to the development of two striking characteristics of modern society: (1) mass ownership of private automobiles, and (2) revolutionary changes in the physical layout of cities. Given these two major variables, Hoover traces their relationship to the current transportation dilemma. Discussion of the massive importance of the automobile to the economy is conducted. Perhaps the most important contribution of Hoover's work is his analysis of the automobile pathology which essentially states that the original gains achieved from automobile transportation, i.e. the automobile as an instrument for increased mobility, has now become rather self-defeating in terms of the costs associated with automobile usage on a mass scale. The basic dysfunctional costs of massive automobile use which Hoover relates are:

1. Increased congestion and distances to work which have largely offset the advantages of automobile travel work.

2. Automobiles are generally more expensive for the work trip than modes of rapid transit.

3. Urban sprawl created by the automobile has produced very poor land use.

4. The automobile has produced city strangulation, i.e. an increased tax burden for the cities with a corresponding decrease in taxable land.

5. Massive pollution caused by automobiles.

6. Political competition between the cities and suburbs.

7. Homogenity of "automobile" suburbs.

Horton, Hugh S. National Transportation Policy Formulation and Implementation, Berkley, California: McCutchen Publishing Corp., 1966.

This author divided national transportation policy into two time periods. From 1945-1960, the thinking of responsible officials was dominated by the auto, larger and more expensive freeways, interchanges and parking facilities. From 1960 onward a more balanced transportation system became the desired goal. The author explains this emerging desire on the federal level in the following way:

"No doubt the reason for the lateness of federal involvement is the fact that in transport as well as in other urban problems, Congress, closely attuned to rural problems, was slow to react into the '60's, when small metropolitan areas were also having commuter problems."

Kain, John F. "The Journey to Work as a Determinant of Residential Location," Papers of the Regional Science Association, Vol. 9, 1962, pp. 137-60.

The paper presents empirical evidence on the manner in which transportation costs influence the household's choice of a residential location and describes a residential location model. The hypothesis central to research is that households substitute journey-to-work expenditures for site expenditures. This substitution depends primarily on household preferences for low density residential services.

Lansing, John B. and Eva Mueller. "Residential Location and Urban Mobility," Highway Research Record, No. 106, 1966, pp. 77-96.

Most people do not estimate the costs of journeying-to-work; however, when the cost is estimated, fuel cost estimating is too high. People are aware of parking fees at the workplace, but are unaware of trip costs for different modes of travel.

Levinson, H. S. "Transportation and Conservation," Traffic Quarterly, January, 1969.

Transportation can be used as an aid to help conservation. For example a rapid transit brought into a downtown area can revitalize a deteriorating core. If freeways are not planned properly, freeways can be disastrous to the retail value of the CBD. The author says this can be prevented by using the total environmental approach. Highways can either work for or against conservation when they go through open space areas. The controversial San Antonio Freeway is an example of how roads can endanger open space whereas the Natches Trace Parkway is an example of how open space is preserved and enjoyed.

Lopresti, Frank E. "First U. S. Center-City People Mover Debuts in Morgantown W. Va." Civil Engineering, November, 1972.

A discussion of the planning and construction of PRT, a new concept in urban transportation.

Luna, Charles. The U.T.U. Handbook of Transportation in America, New York: Popular Library, 197.

This is a source for the governmental role in transportation from an historical stance. It deals with transportation in the U. S. dating back to the 18th century. It places an emphasis on inter-city transportation rather than intra-city. The book is useful in defining the federal role in transportation in three areas: Investment, promotion, and regulation.

Mertins, Herman. Urban Transportation Policy: Fact or Fiction. Syracuse, New York: Syracuse University Press, 1970.

This is perhaps the most important work in the area of federal urban transportation policy. It is both comprehensive and one of the more current documents on the subject.

The author begins with a review of Federal Highway Legislation, particularly in terms of its impact on urban transportation policy. This is followed by a review and appraisal of legislation that specifically pertains to urban mass transportation. The third section deals with the effects of federal organization of an urban transportation policy. In the final section of the interactions of federal policy and urban transportation problems is evaluated.

The author concludes that no integrated national policy governs the passage and funding of federal legislation pertaining to urban transportation. What exists now is "piecemeal policy" in a plethora of responses to particular crises, rather than specific federal policy.

Meyer, J. R., J. F. Kain and M. Wohl. The Urban Transportation Problem. Cambridge: Harvard University Press, 1966.

Part II on comparative costs analysis of different modes of urban mass transit. System of costing and distribution of passengers in and out of CBD are combined into formula for analysis of cost, revenue, and service rendered.

Meyers, Sumner. "Personal Transportation for the Poor," Traffic Quarterly, April, 1970, pp. 191-206.

Examines the transportation plight of low income groups in relation to employment and other social goals, and explores a number of alternatives for meeting the mobility needs of the poor. Among those alternatives discussed is the "New Volks for Poor Folks," plan to help poor people purchase and maintain their own cars.

Monynihan, D. P. "The War Against the Automobile," The Public Interest, Vol. 3, Spring, 1966, pp. 10-26.

Moynihan's article outlines the convergence of forces to do battle with one of the important social problems, traffic safety. Moynihan sketches the enormous costs of automobile injuries and deaths each year which contribute about 4 to 5 million injured and 50,000 fatalities. The massive impact of traffic litigation is presented as a result of the magnitude of traffic accidents each year. However, the most important question which Moynihan asks is whether this mass volume cannot be reduced, and he concludes that it can be tracing the activities of certain interests which are active in producing automobile transportation. The major interests which Moynihan reviews are (1) the automobile industries themselves in response to the safety problem, notable opposition to innovation in producing safer cars. Moynihan also reviews the psychological role played by the automobile in American life and suggests that perhaps this is one of the reasons that nothing has been done about it. Also of interest is the failure of government to adequately or even nominally regulate the conduct of the automobile industry regarding public safety. The article concludes with an elaboration of the forces which have come forth to attempt to alleviate the mass slaughter on the highways. Notable among these forces is the American Trial Lawyers Association. New federal legislation which may combat the national safety problem is mentioned.

North Central Texas Council of Governments. Transit Vehicle Systems Report #3. Joint Regional Public Transportation Study. January, 1972.

This report deals with virtually all of the new concepts of mass transportation systems, including TACV, Dial-a-Bus, Skybus, etc.

O'Leary, Jeremiah, Jr. "Evaluating the Environmental Impact of an Urban Expressway," Traffic Quarterly, July, 1969.

The proposed Riverfront Expressway in New Orleans has been among the most controversial of the urban highways planned for construction under the Interstate Program. An improved expressway design was sought in order to minimize the highway's adverse effect as the Vieux Carre. Those elements under study were the economic condition of the French Quarter, visual character, historic preservation and physical environment. An analysis was made of the range of nuisance factors, including noise, vibration, air pollution and illumination. Even if this freeway is never built, the impact study indicates an approach and method of analysis that should be of value to other communities. The method developed to systematically weight the expected results of the proposed expressway on urban areas, directs efforts in favor of correction action to allay disastrous environmental mistakes.

Ornati, Oscar A. Transportation Needs of the Poor. New York: Praeger Publishers, 1969.

A case study of New York that examines the effect of decentralization of blue-collar employment on low-income groups in the city and the problems faced by those using bus transit. Also presented is a suggested model for the study of the poor in relation to access to job sites. Several alternatives for mobility are examined and criticism of transportation planning is made.

Orski, Kenneth. "The Impact of the Automobile on the Environment," OECD Observer, August, 1971.

The author expresses the feeling that the development of the auto-highway system must not be determined solely by its immediate utility to its sponsors and users but must be guided by considerations that respect a broader range of human needs. Many countries are beginning to establish controls on the automobile. The results have been: (1) Tightening up on Safety - Cars are being required to be more crash worthy while at the same time attempts are being made to enable the driver to avoid accidents. (2) Emissions Reductions - The development of a more efficient internal combustion engine is forthcoming. Alternatives to gasoline powered engines are being researched. (3) Lowering the Noise Level - Noise emission regulations are being enacted. (4) New equipment is forcing the cost of cars up, so fewer people are buying second cars and keeping their old cars longer. (5) Restraints on Auto Use - "Location-specific" controls may reduce smog in areas where motor vehicle use is reduced. Other suggestions are "economic disincentives" and congestion pricing. (6) Traffic Bans - Some cities are experimenting with banning cars from their CBD's. (7) Encouraging Mass Transit - People will leave their cars at home if they are shown that rapid transit can speed the work trip. (8) Other Problems Caused by the Auto - Space and cost of disposing of discarded cars and the enormous amount of urban land devoted to the car.

Owen, Wilfred. The Accessible City, Washington, D. C.: The Brookings Institute, 1972.

Surveys many of the changes needed in the design of our cities if they are to cope with automobile and mass transit. The dysfunctional nature of our cities is as much to blame for the urban crisis as the automobile itself. Alternative means of travel are stressed and explored. Presents an overview of European systems for comparisons with our present position.

Owen, Wilfred. The Metropolitan Transportation Problem. Washington, D. C.: The Brookings Institution, 1972.

The role of public and private transportation in urban areas is compared by costs and trends of the industry. The problems presented by urbanization and the inability of transit to adjust to its changes are the prime focus.

Parente, Francis R. D. C.Transportation Controversies, Values and Integration of Communities. Springfield, Virginia: National Technical Information Service, 1970.

Describes Washington controversy over freeways and Three-Sisters Bridge. Community did not want facility but congress did.

Pignataro, Louis J., and John C. Falcocchio. "Transportation Needs of Low Income Families." Traffic Quarterly, October, 1969, pp. 505-526.

Article is largely concerned with determing and evaluating characteristics of families residing in selected target areas and defining locations, magnitude, and availability of job opportunities in relation to these target area populations, while focusing on the effectiveness of the public transport system in meeting the employment or other mobility needs of low-income groups.

Rankin, Janet S. Commuting: Transportation for Workers in Houston's Central City. Washington, D. C.: U. S. Dept. of Labor, 1970.

Report examines the transportation situation of employed persons residing in a particular survey area in Houston near the central business district. The major methods of transportation used in traveling to work, the money outlay for the home-to-work trip and the amount of time spent getting to the work place are discussed in relation to the Negro, Mexican-American, and the Anglo population.

Reische, Diana, editor. Problems of Mass Transportation. Meyers, Sumner, "Let's Modify Existing Systems," The H. W. Wilson Company, 1970.

Surveys the effects of improved quality, increased efficiency, and transportation for the poor and needy.

Row, Arthur T. "Transportation in the Center City Development Plan for Philadelphia." Highway Research Board Bulletin, 293, 1961, pp. 45-47.

A complex of underground railroad connections, an improved subway station, and a major bus garage and parking garage directly connected with the expressway system have increased accessibility to the CBD and have led to a proposed major downtown development project.

Seedlock, Robert F. "Transit System Employs Three Modes," Civil Engineering, May, 1972.

The transit system for the Pittsburgh area will be a combination of: rubber-tired transit vehicles on guideways, buses on exclusive roadways, and upgraded streetcars.

Sexton, Burton H. "Traffic Noise," Traffic Quarterly, July, 1969.

The physical measurement of noise, which is unwanted sound, is usually done by a sound level meter which registers in decibels. Unfortunately, it is sometimes necessary to locate expressway sections near or adjacent to quiet areas or uses. Depending upon the type of highway section and upon the type of area that the highway traverses, planning for noise control features should accompany the design of the facility. In residential areas, for instance, where the ambient noise level is low, the decibel level should be between 40 and 50. The author discusses the type of noise barriers which should be used for different freeway locations. Masonery walls, plantings and slope cuts with grass are some of the best methods for lessening the impact of freeway noise.

Smerk, George M., editor. Readings in Urban Transportation. Bloomington: Indiana University Press, 1968.

Readings in Urban Transportation reviews various aspects of the urban transportation problem and proposed methods for its solution. Areas which are covered are the decline of public transportation, automobile usage and its cost, as well as centain more specific topics concerning urban transportation. The primary section of this reference which was utilized for the economic system and transportation was Chapter 2 - Automobile Use and Its Cost the primary part of this chapter which was of value was the section entitled The Cost of Getting to Work. Basically this article reviews the relevant costs of getting to work by all modes of transportation and concludes that automobile transportation is generally the most expensive when all the costs are included. Not only the fixed costs of transportation must be evaluated, but also the variable costs. Variable costs are defined essentially as costs incurred for operative expenses.

Smerk, George. "Subsidies for Urban Mass Transportation," Land Economics, February, 1965, pp. 62-75.

Discusses under what conditions subsidies are desirable and/or public ownership and control. (1) When external economies and diseconomies are large. (2) When non-assignable, or indivisible way to recover total costs. (3) When the industry is inherently monopolistic. (4) When public costs of operation are not much different from those of private firms. Suggests mass transit is a public enterprise and should be subsidized.

Smith, Wilbur and Associates. The Potential for Bus Rapid Transit, Detroit: 1970.

Discusses the development of rail transit and presents a case for bus rapid transit on freeways, exclusive lanes, or separate bus roadways. According to this report, the capacity of an exclusive bus roadway can be as high as 76,000 seated passengers per hour.

Tabor, R. Stone. Beyond the Automobile. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1971.

Discusses the advantages and disadvantages of fixed-route versus random-route transportation systems. The author explains why mass transit is the most positive answer to our transportation needs and proposes a comprehensive transportation program.

Thiel, Floyd I. "Social Effects of Modern Highway Transportation," Highway Research Board Bulletin, 327, 1962, pp. 1-20.

Discussion of the influence of highway development on mobile and drivein services, opportunities for employment, and residential characteristics. Public planning should include an examination of social influences of highway development.

Udall, Stewart. "The Last Traffic Jam." The Atlantic, October, 1972, pp. 72-76.

"The Last Traffic Jam" presents a very convincing argument for the proposition that "less is more." The rationale for this argument is based on the rapidly diminishing quantity of petroleum resources in the United States. Udall links the rapid depletion of these resources to the massive use of the automobile and proposes that to maintain a reasonable level of natural resources for children and their children it is necessary to maintain prudence in the rate of their consumption. Inherent in this position is Udall's suggestion that the American system begin the shift to mass transportation in order to conserve our oil resources. Udall warns against the dangers of exhausting our oil reserves, the most dangerous of which he regards as the creation of a vast energy crisis which would have to be met by importing the majority of the oil. The effect on the balance of payments according to Udall would be disastrous. Udall levels attacks on both the automobile and the oil industries. The oil industry is regarded as shirking its responsibility for conserving the nation's resources, and the automobile industry is criticized for its notable short-run interest.

U. S. Congress, House Committee on Banking and Currency, Urban Mass Transportation Hearings before a Subcommittee of the Committee of Banking and Currency, House of Representatives, 92nd Congress, and 2nd Session, 1972.

This document records the testimony of what could be classified as the "pro mass transit" lobby. The testimony is too diverse to give a synopsis, speakers range from members of the Congress, Mayor Richard Daley representing the U. S. Conference of Mayors and the National League of Cities to members of the Amalgamated Transit Union of the AFL-CIO.

U. S. Department of Housing and Urban Development. Tomorrow's Transportation. Washington, D. C.: 1968.

This report describes an in-depth study of the transportation requirements, both public and private, for cities of the future. New urban transportation systems that will provide fast, safe movement of people, without pollution and that will contribute to sound city planning are proposed. Seven of the more promising new systems are described in detail.

U. S. Department of Transportation, Background Information on the Urban Mass Transportation Administration. Washington, D. C.: U. S. Government Printing Office, 1972.

This kit contains (1) General Background (2) Program Background (3) Legislative Background. It states the goals and purposes of UMTA and the programs it administers with DOT. It also gives a brief synopsis of the urban transportation problem and up-to-date account of congressional legislation.

U. S. Department of Transportation, Managing the D.O.T., James Beggs, Washington, D. C.: U. S. Government Printing Office, 1971.

This pamphlet details the structure and organization of DOT. It illustrates the chain of command involved in managing DOT. Of particular interest was a section labeled Executive-Congressional-Public Relationship. In it Under-Secretaty Beggs, supports Freeman's sub-system approach to policy-making. He states, "It is the head of the department who assumes the responsibility for presenting and defending the more detailed presentations to the Congressional Committees. Thus the Executive Departments have the day to day working contact with the Congress and more broadly, the public.

U. S. Department of Transportation, Urban Mass Transportation Act of 1964 and Related Laws as Amended through January 1, 1972, Washington, D. C.

This book documents legislation which is the foundation of the Federal Urban Transportation program. It has been updated on a yearly basis through Congressional amendments to maintain its viability.

United Transportation Union. The Government Role. Report to the Conference on Mass Transportation. Chicago, April 25-27, 1968, New York: Popular Library, 1968.

1. "Government in Transit" by David Hammon--Criticizes the federal role as time consuming, uncertain and wholly inadequate, funded on a year to year basis.

2. "The Federal Role in Transportation Research" by Cecil Mackery--Supports a broader role in research in transportation, proposes the formulation of a Transportation Research Institute, which would be cooperative venture between government and educational institutions.

Vance, James E. "Housing the Worker: The Employment Linkage as a Force in Urban Structure," Economic Geography, Vol. 42, October, 1966, pp. 294-325.

A consideration of general principles of industrial structure, transportation, and the nature of worker housing, including a descriptive model of housing change and industrial growth.

Volpe, John A. "Urban Transportation Tomorrow." The American City, November, 1969, pp. 59-62.

"Urban Transportation Tomorrow" provides a general review of the massive rate of growth of the American population and the transportation system which has sprung up to meet the transit needs of the country. Volpe briefly reviews certain dysfunctional aspects of automobile transportation, and then proceeds with a descriptive discussion of various new modes of transportation which may be designed to complement the automobile in the transportation system. The new modes which Volpe mentions are TOPICS, use of fringe parking facilities, more efficient use of buses, research for nonconventional modes of transportation, and other general proposals for implementing mass transportation. In places Volpe is particularly incisive in his evaluation of the dysfunctional aspects of the automobile. One such insight is found when he asks the question if the personal mobility created by the automobile is at all worth the huge socially incurred costs which he elaborates.

Voorhees, Alan M. Immediate Action Improvement Program: Fort Worth Bus Operational Study, City of Fort Worth, 1972.

One of a series of reports which documents studies directed at improving public transportation for Fort Worth, Texas. This report describes the conditions of the Fort Worth bus system and the characteristics of the people who ride it. Major options and alternatives for improving transit are reviewed.

Wells, John D., et al. Economic Characteristics of the Urban Public Transportation Industry. Washington, D. C.: U. S. Government Printing Office, 1972.

Study of public transit costs. Operation, and the economic nature of urban bus, taxi, rapid rail, trolly, and commuter train are presented, discussed, compared to each other, and compared in some cases to private transit models.

Wheeler, James O. "The Transportation Model and Changing Home-Work Location." Professional Geographer, Vol. 19, May, 1967, pp. 144-148.

The paper presents two applications of the normative transportation model under different spatial structures of home and work. The first traces journey-to-work changes resulting from different locational arrangements of home and work in a hypothetical city. The second, based on Pittsburgh data, measures the effect of work-trips first by modifying residential location and second by modifying only workplace distributions.

Whyte, William. "Defending Open Space." The Last Landscape.

What the U. S. gains annually in open space, the states and federal governments take in almost equal proportions for highways, cloverleafs, dams, sewage plants, post offices, and parking lots. Highway builders have been doing most of the taking. In urban areas, they are positively attracted to park land because the land is cheap and there are far less demolitions. The public hearing usually comes after the construction plans have been drawn. Some highways have been realigned but most of them have had to be stopped in mid-construction. An example is the Embaracdero Freeway in San Francisco. The author makes suggestions as to how park land might be protected. One answer might be to require park land to be bought at replacement value. Another way would be to establish by law that parkland is a higher use than freeways. This would require judicial review before a freeway could take park land. Most importantly, remove the directive that highways be routed in the most direct and practical location. There is still the problem of municipalities taking park land for other uses. San Antonio is doing that now. Whyte sees the encroachment problem as going from bad to worse.

Wingo, Lowdon. Transportation and Urban Land. Washington, D. C.: Resources for the Future, Inc., 1961.

Transportation and Urban Land deals with certain broad implications of transportation for land resources in the urban area. The primary part of this reference which was of interest for the economic system and transportation was Chapter 2--Transportation and Urban Spatial Organization. Wingo covers several critical topics in this chapter. Among these critical areas are: (1) a definition of the urban transportation system (2) the importance of transportation as an economic determinant of the distribution of business activity (3) the role of accessibility of land vis-a-vis the transportation function (4) the basic dimensions of transportation (5) transportation load factors (6) transportation capacities. An interesting part of this chapter is Wingo's model of the transportation capacity of the system at a given time.

Wohl, Martin. "Urban Transport We Could Really Use." Technology Review. Boston, pp. 31-37.

This article challenges the use of funds to develop rail-rapid transit such at BART because of the large cost vs the number of passengers served. Also, it talks about those passengers who need mass transit systems.

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